



Webinar Announcement

From Flood to Field: Utilities Engaging in their Watersheds



12:00 Noon to 1:30 pm
Tuesday, November 14, 2017

Please join CSWEA-Wisconsin Watershed and Stormwater Committee and Marquette University for a **FREE Webinar** offering examples of wastewater utilities engaging in various watershed management issues. Advanced registration required. Register online at <https://cswea.wufoo.com/forms/2017-stormwater-watershed-webinar/>

Presentations will cover the following topics. See Page 2 for detailed descriptions:

- Burlington, WI: Utility Response to Historic Flooding
- Milwaukee Metropolitan Sewerage District: Green Stormwater Infrastructure Sizing Tools
- NEW Water: Watershed Tools for Adaptive Management Verification

A webinar link will be emailed prior to the webinar for those who register. Participate in-person at the Global Water Center, sixth floor. Space at the Global Water Center is limited to 30. Lunch is not provided; please bring your own. There are nearby restaurants and a coffee counter in the Global Water Center.

Global Water Center
247 West Freshwater Way
Milwaukee, WI 53204

Direct questions to Jon Lindert: 608-251-4843, Jon.Lindert@strand.com

Presentation Topics

Burlington Utility Response to 2017 Historic Flooding

Donny Hefty/Burlington and Jim Kleinschmidt/Baxter and Woodman

The City of Burlington experienced record flooding due to a rain storm that dropped more than 9 inches of rain from July 10 to July 12, 2017. The rainfall, coupled with higher-than-normal Fox River flows in 2017, pushed the river level more than 3 feet above the historical record river stage. This caused significant flooding in the Burlington area, including the closure of several bridges as well as the railroad corridor through Burlington. The increased River Stage, plus high flows from tributary communities, dramatically increased flows to the Burlington Wastewater Treatment Plant to well past the design flow for the facility. The City lost power to all 9 pumping stations, only 2 of which have standby generators. The other 7 pumping stations were manned by City staff with portable generators. High water flooded the dry well of one of the pumping stations, submerging pumps and controls. City staff were assisted by other communities in the flood response to minimize environmental impacts. This presentation will describe the urban watershed, previous flooding events, the magnitude of precipitation in this storm, record river stages, and flows to the Wastewater Treatment Plant. The presentation will include insights into future considerations for long-term resiliency planning for Burlington, Wisconsin.

Green Stormwater Infrastructure Sizing Tools

Phil Bzdusek/Strand

The Milwaukee Metropolitan Sewerage District developed green stormwater infrastructure specifications, design templates, and a high-level planning tool to standardize and make it easier for designers to implement green stormwater infrastructure throughout the region. The planning tool sizes green stormwater infrastructure strategies and estimates the percent reduction for total suspended solids and total phosphorous, which can be used by municipalities to estimate water quality benefits for total maximum daily load and other water quality requirements. The presentation will describe the benefits of the tool for green stormwater infrastructure planning and design.

Watershed Tools for Adaptive Management Verification

Jeff Smudde/NEW Water, Brent Brown/CH2M, and Megan Bender/CH2M

Key tools have been developed to plan and verify best management practice (BMP) implementation and project progress on the Silver Creek Adaptive Management Pilot Project. These tools include a combination of high-tech mobile applications, experienced personnel, and tried and true sampling techniques. The team has effectively implemented the ArcGIS Online Collector Application on handheld devices for use during site reconnaissance pre-construction, construction, and for post-construction BMP maintenance. The project has found using mobile tools has allowed personnel at all levels within the project to effectively contribute to the overall project successes, including workload planning with key staff, BMP planning, design, verification, and collaboration in the multiple facets of BMP implementation, all in real-time. Water quality sampling throughout the watershed has shown the watershed response demonstrating water quality improvement as BMP implementation has progressed. Water quality improvement to date has improved the frequency of meeting the phosphorus standard from 33% to 54% of the time in a year-over-year comparison. The presentation will focus on the effective use of these tools and ideas for future improvements.